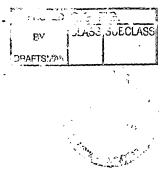
1/3

CCGGGGGAGGCTCTTAGGATGTTGTGCTCCGCGGGGCTCAGACGAAATCTTCTGTGAATGGAAG AAATGCTTCCAAGCAAACAGCCACTACCAGAACAACTGAGAAAGAGGCCAGAGCGCGAGTTCTC AAACCCTGATTTCGCAGGAGCCGGAGGGGGATATTGGAGAAAGGTATTTCCAGTCACGCGCAG CCAAAGAGATGGAGTACGACGCTTACAACGACTCCGGCATCTATGATGATGAGTACTCTGATGG CTTTGGCTACTTTGTGGACTTGGAGGAGGCGAGTCCGTGGGAGGCCAAGGTGGCCCCGGTCTTC CTGGTGGTGATCTACAGCTTGGTGTGCTTCCTCGGTCTCCTAGGCAACGGCCTGGTGATTGTCA TCGCCACCTTCAAGATGAAGAGACCGTGAACACTGTGTGGTTTGTCAACCTGGCTGTGGCCGA CTTCCTGTTCAACATCTTTTTGCCGATGCACATCACCTACGCGGCCATGGACTACCACTGGGTG TTCGGGAAGGCCATGTGCAAGATCAGCAACTTCTTGCTCAGCCACAACATGTACACCAGCGTCT TCCTGCTGACTGTCATCAGCTTTGACCGCTGCATCTCCGTGCTGCTCCCCGTCTGGTCCCAGAA CCACCGCAGCATCCGCCTGGCCTACATGACCTGCTCGGCCGTCTGGGTCCTGGCTTTCTTCTTG AGCTCCCCGTCCCTTGTCTTCCGGGACACCGCCAACATTCATGGGAAGATAACCTGCTTCAACA ACTTCAGCTTGGCCGCGCCTGAGTCCTCCCCACATCCCGCCCACTCGCAAGTAGTTTCCACAGG GTACAGCAGACACGTGGCGGTCACTGTCACCCGCTTCCTTTGCGGCCTTCCTGATCCCCGTCTTC ATCATCACGGCCTGCTACCTTACCATCGTCTTCAAGCTGCAGCGCAACCGCCTGGCCAAGAACA AGAAGCCCTTCAAGATCATCACCATCATCATCACCTTCTTCCTCTGCTGGTGCCCCTACCA CACCCTCTACCTGCTGGAGCTCCACCACACAGCTGTGCCAAGCTCTGTCTTCAGCCTGGGGCTA CCCCTGGCCACGGCCGTCGCCATCGCCAACAGCTGCATGAACCCCATTCTGTACGTCTTCATGG CACAGGCCCCTCCTCCTACCCCAGTCACAGGAGCTTCACCAAGATGTCGTCTTTGAATGAGAAG GCTTCGGTGAATGAGAAGGAGACCAGTACCCTCTGAACCTCACCTGGGAATGTCCCCCAAAGGT GCCACGGCCCAGGGACGCCTAGGGACTTGTCTCCGGAAGTGGGAGACATGCCGGGAGCCTTTGG GAATGCTCCAACGCCCACTGAATTTTGCACAAGGCGGCTCATGTTTTAAGTGGGGTTCCCAAGT GTGGACACTCTTCCAGTAAAATGGCAGGCAAGCAACCCGAGCTTCTACAACAGGAGCAGGGGAC CGACTGTGACTGACTCAGAAAAGGGAGCATTTCTGAAGCCAAGACTTGAGCTGTGACCAACATA CAGGCCAACATACACGATGTCGCCGTGCATGCCCTGAACATGCTGCGCAGTTTTCGTGGGTGAG GAAGTTACCGCAAACCCATTGCAGACCTGTTATGGCAACATGACAGTCAAACCCAACAAAGCCCA ATACACCCCAACATCCTCCAAGACCTTGACTTTGGATTTCAGAAGAACGGGGGGTGGGGGGAAC GAGGACCTGAGGGTTAATTTCGAGCTTGGCGAAGCC (SEO ID NO:1)

FIGURE 1



underlined = deleted in targeting construct

[] = sequence flanking Neo insert in targeting construct

CCGGGGGAGGCTCTTAGGATGTTGTGCTCCGCGGGGCTCAGACGAAATCTTCTGTGAATG GAAGAAATGCTTCCAAGCAAACAGCCACTACCAGAACAACTGAGAAAGAGGCCAGAGCGC GAGTTCTCAAACCCTGATTTCGCAGGAGCCGGAGGGGGATATTGGAGAGAAGGTATTTCC AGTCACGCGCAGTAACAGACCAGCCAAGGACCAGGACTGGAGTTCTGTTCTACAACGGTG GAACAGTGAACGGTCTCCAAAG [AGATGGAGTACGACGCTTACAACGACTCCGGCATCTA TGATGATGAGTACTCTGATGGCTTTGGCTACTTTGTGGACTTGGAGGAGGCGAGTCCGTG GGAGGCCAAGGTGGCCCCGGTCTTCCTGGTGGTGATCTACAGCTTGGTGTGCTTCCTCGG TC] TCCTAGGCAACGGCCTGGTGATTGTCATCGCCACCTTCAAGATGAAGAAGACCGTGA $\underline{ACACTGTGTGTCTCAACCTGGCTGTGGCCGACTTCCTGTTCAACATCTTTTTGCCGA}\\ \underline{TGCACATCACCTACGCGGCCATGGACTACCACTGGGTG}[TTCGGGAAGGCCATGTGCAAG$ ATCAGCAACTTCTTGCTCAGCCACAACATGTACACCAGCGTCTTCCTGCTGACTGTCATC AGCTTTGACCGCTGCATCTCCGTGCTGCTCCCCGTCTGGTCCCAGAACCACCGCAGCATC CGCCTGGCCTACATGACCTGCTCGGCCGTCTGGGTCCTGGCTTTCTTCTTGAGCTCCCCG TCCCTTGTCTTCCGGGACACCGCCAACATTCATGGGAAGATAACCTGCTTCAACAACTTC AGCTTGGCCGCCCTGAGTCCTCCCCACATCCCGCCCACTCGCAAGTAGTTTCCACAGGG TACAGCAGACACGTGGCGGTCACTGTCACCCGCTTCCTTTGCGGCTTCCTGATCCCCGTC TTCATCATCACGGCCTGCTACCTTACCATCGTCTTCAAGCTGCAGCGCAACCGCCTGGCC AAGAACAAGAAGCCCTTCAAGATCATCATCACCATCATCATCACCTTCTTCCTCTGCTGG TGCCCCTACCACACCCTCTACCTGCTGGAGCTCCACCACACACGCTGTGCCAAGCTCTGTC TTCAGCCTGGGGCTACCCCTGGCCACGGCCGTCGCCATCGCCAACAGCTGCATGAACCCC ATTCTGTACGTCTTCATGGGCCACGACTTCAGAAAATTCAAGGTGGCCCTCTTCTCCCGC CTGGCCAACGCCTGAGTGAGGACACAGGCCC]CTCCTCCTACCCCAGTCACAGGAGCTT CACCAAGATGTCGTCTTTGAATGAGAAGGCTTCGGTGAATGAGAAGGAGACCAGTACCCT CTGAACCTCACCTGGGAATGTCCCCCAAAGGTGCCACGGCCCAGGGACGCCTAGGGACTT GTCTCCGGAAGTGGGAGACATGCCGGGAGCCTTTGGGAATGCTCCAACGCCCACTGAATT TTGCACAGGCGGCTCATGTTTTAAGTGGGGTTCCCAAGTGTGGACACTCTTCCAGTAAA ATGGCAGGCAAGCAACCCGAGCTTCTACAACAGGAGCAGGGGACCGACTGTGACTG AGAAAAGGGAGCATTTCTGAAGCCAAGACTTGAGCTGTGACCAACATACAGGCCAACATA CACGATGTCGCCGTGCATGCCCTGAACATGCTGCGCAGTTTTCGTGGGTGAGGAAGTTAC CGCAAACCCATTGCAGACCTGTTATGGCAACATGACAGTCAAACCAACAAAGCCCAATAC GAGGACCTGAGGGTTAATTTCGAGCTTGGCGAAGCC

FIGURE 2A

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Gene Sequence Structure *

Size of full-length cDNA: 1892 bp

422 bp Sequence Deleted 576 bp

Neo

Cassette

Targeting Vector* (genomic sequence)

Construct Number: 993

Arm Length: 5': 2.3 kb 3': 1.9 kb

5'>CCACAGAGGTCCTCAGCCTGT GACCCTGTCTTCCCTCACAGAGAT GGAGTACGACGCTTACAACGACTC CGGCATCTATGATGATGAGTACTC TGATGGCTTTGGCTACTTTTGGGA CTTGGAGGAGGCGAGTCCGTGGGA GGCCAAGGTGGCCCCGGTCTTCCT GGTGGTGATCTACAGCTTGGTGTG

5' arm

CTTCCTCGGTC < 3'
(SEQ ID NO:2)

5'>TTCGGGAAGGCCATGTGCAAG ATCAGCAACTTCTTGCTCAGCCAC AACATGTACACCAGCGTCTTCCTG CTGACTGTCATCAGCTTTGACCGC TGCATCTCCGTGCTCCCCGTC TGGTCCCAGAACCACCGCAGCATC CGCCTGGCCTACATGACCTGCTCG GCCGTCTGGGTCCTGGCTTTCTTC TTGAGCTCCCC<3' (SEQ ID NO:3)

3' am

* Not drawn to scale

FIGURE 2B